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Comparative study of Iranian universities active and inactive academic members' general health conditions

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ABSTRACT

This research is a casual-comparative one in type, where we have made effort to study and compare the general health conditions of Iranian universities' active and inactive academic staff. Samples included 250 members of academic staff of Iranian universities selected randomly and compared as two active and inactive groups. General Health Questionnaire 28 was applied as a means of research, validity and reliability has been reported in different research works mentioned. Women in this research were found to enjoy better health; the same was the case with the married academic members. In respect of last educational degree and academic rank, it was understood that, junior instructor bachelors were of better general health condition compared to others. Review of physical activity showed 193 samples were physically active and 51 of them inactive.

Key words: General health, Academic Members, Physically active and inactive.

INTRODUCTION

Today, vast advancement in technology has obviously affected the life style in human communities, what is more evident in industrially developed countries. Despite commencement of the energy crisis and threatening the world's future, great reduction in physical activities and locomotion has taken place among people due to mechanization and substitution of job performance facilities for the physical effort. People turn increasingly inactive and many of them find the chances of doing exercises only in their limited leisure time. (Madadi. F. & Niroomand. N. 1990)

Parallel with the general fall of physical and locomotor activities in the recent years, a remarkable increase in mortality and symptoms of cardiovascular diseases are witnessed among developed and underdeveloped communities. Several evidence indicate the prevalence of diseases, neurologic and psychologic disorders in the modern communities. Many citizens

enjoying welfare and facilities of mechanized life suffer from different organic, muscular and articular problems. (Asadi. H. & Ahmadi. M.R. 2000)

Academic Members of universities as the class of learned people, who are in charge of disseminating knowledge and technology, and instructors of the skilled forces and the communities and direct the national research area and general lead the national development, naturally hold a special position and their efficiency is of great importance in the large scale national development and such efficiency will certainly be attainable in the light of their mental and physical health. (Bagherian. F. 2004)

Should the productivity of the academic members and the factors affecting it be neglected, the problems and restrictions in their life and work media, or in other words, the environmental factors affecting them and the role of such factors in the efficiency of this strategic human resource be left behind without assessment, such a negligence shall bring about loss of great costs spent on higher education for providing the community with scientific and technologic development and ultimately the sustainable development in educational, cultural, economic and political aspects.(Bagherian. F. 2004)

As already mentioned, reduction in locomotion and physical activity in today's life style which is brought about by technological advancement and predominance of machine over the man's life and disseminated as ordinary way of modern life, can cause a fall in the public health in general including members of academic staff as a sub-class.

In his PhD Dissertation, Mousavi (2001) studied effects of sport on mental pressure of employees and academic members of Region-3/ Islamic Azad University and concluded that, 60% of male and 59% of female academic staff were in poor locomotive and physical activity both in life and work.

Boroujerdi (2003) showed in his research that, level of public health at universities is below average and in all cases women are in poorer condition compared to men.

Doing exercises and their positive effect on man's health is among important research topics and is in connection with other activities of life. Several investigations have proved and confirmed the good effects of sportive activities on man's physical and mental health, Teffler (1994), Wall (1994), Yang (1994), and Von Dost (1999). (Poursoltani. H. 2003)

Review of the study works already done shows participation in individual and collective sports promotes health both physically and mentally compared to those without such activities. Fontaine (2000) concluded that individual and collective physical activities improves mental heath and helps with the lowering of the anxiety and depression level.

Kohl (2000) also proved part taking in regular sportive exercises reduces depression and improves mental health of athletes.

Aarni et al (2002) came in their research to the conclusion that active and inactive test subjects were physically in better general health and social relations than inactive ones.

Boreham et al. also came to the result that there is a moderate relationship between physical fitness and body fat and physical fitness and heart disease sources like heart coronary, systolic

and diastolic blood pressures and those enjoying better physical fitness are of better cardiovascular health and lower body fat.

Findings of Asadi and Goudarzi(2003) show that 55% of Tehran University Professors consider locomotive and sportive activities effective on elevating quality of educational activities and 37% of them on it quantity. Also, 64% of academic members believed sports to be of important role on mental health and 58% of them evaluated it as of a very high effect on physical health. 40% of the mentioned professors introduced regular locomotive and physical activities as a very influential factor for communicating with colleagues and students.

In connection with effect of sportive activities on the general health and fitness of adults, results of Kohl's research (2001) on reduction of coronary diseases, Fagard (2001) on reduction of hypertension, and Vuori(2001) on prevention and treatment of backache and osteoporosis, Thune and Fuber(2001) on different types of cancers, show favorable effects and use of physical and sportive exercises and confirm reduction of diseases and disorders owing to practicing on a regular and continued basis.(Asgari. H. & Nooraee. T. 1999)

So far, many studies have been carried out in connection with the fall in efficiency of the academic staff due to educational security of students at universities and higher education centers(Golshani 2001), propensity of academic members to immigrate developed countries(Tayefi 2001), Outlook of academic staff to their social status(Bagheryan 2004), relationship between occupational stressful factors and weakening of academic staff (Boroujerdi 2003) have expressed different aspects of problems prevailing among this learned social class in the country. What is less focused on is the comparison of the general health of physically active and inactive groups among them. While several investigations have been carried out about general health of other social classes, among which one can remind the study of relationship between limits of exercising and health condition of Islamic Revolution's Guards Corps directors (Derakhshan 1997), comparison of general health of the athlete and non-athlete disabled (Mousavi and Sadeghi 2001), comparison of health of the athlete and non-athlete male students (Asadi and Ahmadi 2000), relationship between sportive activities and general health level of the disabled (Poursoltani 2003).

The present study is an effort to compare general health of physically active and inactive academic members in Iran. Since their failure to practice regular physical activity can have an adverse effect on their general health and leave them with various physical and mental problems due to their permanent engagement in scientific, educational, executive and research works and gradually result in their poor job efficiency.

Researches have strived in this work, to answer questions such as: What are the differences between general health conditions of physically active and inactive academic members? What positive outcomes can be expected in favor of general health of academic members from their engagement in sports and physical activities?

MATERIALS AND METHODS

Methodology

This research is a casual-comparative one where efforts have been made to make a comparison between general health conditions of physically active and inactive academic members in Iranian universities.

Population and Research Sample

The population in question was academic members of universities affiliated to the Iranian Ministry of Science, Research and Technology, based on the latest records of the Iranian Higher Education Statistics Center in the years 2009-2011 and the number of 375 people out of the mentioned people were adopted randomly using the Morgan's Sample Volume Determination Table, out of which 250 people returned the filled out questionnaires.

Measurement Means

The measurement means employed in this research were two types of questionnaires to collect the data on personal details, and locomotive and sportive practices of the subjects, researcher made questionnaire and for general health of them standard Goldberg and Hiller questionnaire (GHQ) containing 28 questions were used.

Statistical Analysis Methods

The collected data were analyzed in two descriptive and inferential methods. To organize, summarize and classify the raw grades, the descriptive, frequency, percentage, mean and standard deviation were employed and in the section dealing with inferential findings, the Chi Square, Analysis of Variance and t-test were used.

RESULTS

Here, first personal details of academic members are reviewed.

Personal	Sex Marital Status		Last Educational Degree			Academic Rank					
Details Records	Male	Female	Married	Single	Bachelor of Science	Master of Science	Ph.D	Assistant Instructor	Instructor	Assistant Professor	Professors
Number	207	30	217	33	25	98	107	12	117	84	19
Percentage	82.8	12	86.8	13.2	10	39.2	42.8	4.8	46.8	33.6	7.6
No answer	13				20			18			
Percentage	5.2				8		7.2				

Table-1: Personal Details of the Subjects

Table-1 shows number of population in different research groups along with the pertinent percentages. Population of the research consisted of 250 academic members of Iranian state universities including 12 Assistant Instructors, 117 Instructors, 84 Assistant Professors and 19 Professors. No Associate Professors were in the population. 217 people were married and 33 single, most of the samples were male (207) and only some of them female (30). Thirteen people did not mention their sex.

Record	Frequency	Percentage	No Answer	Percentage	Total	
Dhysical Activity	Active	193	77.2	6	2.4	250
Flysical Activity	Inactive	51	20.4	0		
Conoral Health	Acceptable	179	71.6	29	15.2	250
General Health	Unacceptable	33	13.2	30	13.2	

From among the 250 samples, the number of 193 people had been physically active in the past one year and 51 people inactive. Review of general health of the statistical samples showed, that of 179 people had been acceptable and 33 people unacceptable.

In the testing of the research hypothesis, the following were clarified:

1-There is no significant relation between general health of the samples and their locomotive activity.

Record	X^2	Freedom	Significance
Variable		Degree	Level
General health in Comparison with Physical Activity	2.689	1	0.101

Table-3: Comparison of General Health between Active& Inactive Samples

Result of Chi Square Test for comparing the general health of physically active and inactive samples showed that, (X^2 =2.689, P=0.1>0.05) the significance level was more than 0.05. So based on the results attained, the zero theory was accepted and concluded that there is no significant relation between the samples' general health and their physical activity.

Table-4: Determining the Samples' General Health Difference from Viewpoint of Sex and Marital Status

General Health Sex	Mean	Standard Deviation	Difference from the Mean
Male	20.923	8.616	0.662
Female	16.333	2.974	0.543
Single	22.697	12.089	2.104
Married	19.273	7.059	0.527

Result of general comparison of samples from viewpoint of sex carried out using the T-test, showed that the observed "t" was 2.882 and significance level of 0.004 concluding that there is a significant relation between general health of the samples from viewpoint of sex. (P<0.05).

On the basis of Table-4, regarding the, that men enjoy higher mean in respect of mean time and standard deviation difference, so it became clear that, they are of lower general health compared to women.

3-There is no significant difference between general health of married and single samples.

Result of comparing the general health of the samples, from viewpoint of marital status showed that, the observed "t" there was equal -2.250 and its significance level was 0.026, concluding that there is a significant relation between general health of the samples from viewpoint of marital status (P<0.05). Also, based on Table-4, the shows higher values for the mean and the difference with the standards deviation for single samples compared to married ones, it was concluded that married samples were of higher general health compared to singles ones.

4-There is no significant difference between general health of samples from viewpoint of educational degree.

General Health			
	Mean	Standard Deviation	Standard Deviation & Mean Difference
Education Level			
Bachelor's	26.036	15.107	3.465
Master's	18.122	4.194	0.442
PhD	21.310	8.711	0.956

Table-5:	Determining	General Health	of Samples from	Viewpoint of Education
1 abic-5.	Determining	Ocher al Health	or samples if on	viewpoint of Education

Result of comparing the general health of the samples, from viewpoint of education showed that, the observed "F" was equal 9.608 and its significance level was 0.000, concluding that there is a significant relation between general health of the samples from viewpoint of education level. To study which group caused this significance, the pursuance test of Tucky was employed.

Table-6: Results of Tucky test in comparison of the pairs between the mean values of general health regarding the last educational degree

Parameter	Mean Difference	Significance Level
Education Degree		-
Master's	8.246	0.000
&		
PhD	5.067	0.034
Bachelor's	-8.246	0.000
&		
PhD	-3.179	0.025
Bachelor's	-5.067	0.034
&		
Master's	3.179	0.025

Results of Tucky Test as per the Table-7, showed that, the difference existing among holders of different educational degrees was higher among Bachelor's compared to holders of other degrees (P<0.05).

5-There is no significant difference between general health of samples from viewpoint of academic rank.

 Table-7: Determining General Health different of Samples from Viewpoint of Academic Level

Parameter			
	Mean	Standard Deviation	Standard Deviation & Mean Difference
Academic Rank			
Junior Instructor	27.500	19.350	5.586
Instructor	17.670	3.899	0.395
Assistant Professor	21.075	8.682	1.068
Professor	16.157	3.789	0.869

Result of comparing the general health of the samples, from viewpoint of academic rank showed that, the observed "F" was equal 8.613 and its significance level was 0.000, concluding that there is a significant relation between general health of the samples from viewpoint of academic rank. To study which group caused this significance, the pursuance test of Tucky was employed which showed that there is a significant difference between samples of the group Junior Instructor with other academic ranks (P<0.05).

DISCUSSION AND CONCLUSION

Out of the total 250 samples of this research, 217 persons were married and 33 persons single. 13 people had not mentioned their sex in the questionnaires. The population under consideration consisted of 12 Junior Instructors, 117 Instructors, 84 Assistant Professors and 19 Professors. None of them were in the rank of Associate Professor.

Review of the physical and sportive activity of samples showed that the number of 193 persons of them have been physically active in the past one year, 51 of them have had no acceptable physical activity. This finding is conformity with the results attained by Asadi and Goudarzi (2003) and Amirtash (2003), who announced more than half of the academic members of Tehran and Tarbiat Moallem Universities do not have physical and sportive activities in their life. The reason for this phenomenon has been stated to be the failure to allocate proper facilities and work hours for the academic members. In this connection, managers and planners of sports and physical education at universities are advised to consider the particular conditions of university teachers in the timetable preparation for the sport places.

On the basis of the statistical data gained through the samples, it was learnt that, there is no significant relation between general health of the samples and their locomotive activity, in the level of (P<0.05), which is conformity with findings of other researchers, among whom one may mention Fisher and others (1996), Foster (1997) and some other investigations carried out in this area which believe: Physical activities have no effect on individuals' health.

Khaledan (2000) too, writes in the conclusion of his research that, participation in different physical activities during adolescence and middle age is of little effect on the length of life and health in the last years of living. Based on this, the present finding is not in conformity with the results attained by Derakhshan Mobarakeh (1997), Poursoltani(2003), Gronic (1992) and Canada Health Center (1999) who have known performing regular sportive activities effective on improvement of general health of their statistical samples. The reason for this, can be the economic conditions of the academic members and their over engagement in teaching at different universities and high education institutes which take from them most of the useful hours of their life.

Reviewing the studies carried out in this respect, one can conclude that: The researches carried out focusing on the effect of moderate and controlled physical activities, often approve their good effects, while other similar researches in different statistical populations have come to contradictory results. In this connection Mc Owli (1994) believes that the main reason for the discrepancy in research result in probably in the research methodology employed, number and kind of samples, type of their sportive activities, lack of control group, high number of research variables, and difference in measurement means.

In review and study of the conditions of general health of samples and their sex, it was known that female samples were of better general health than male ones. In connection with gender, Jahan Seir(1999), Nourbakhsh(1999), Moradi and others(2001), Sadeghi Borojerdi(2003), Meslash (1982), Kasiz and Mayerberg (1984), Quickly and others (1978) have reported that, there is a difference between health of men and women. But their research indicated that, men were of higher health compared to women and in full coordination with this research, one can point to results Soson and others (1990) and Canada Health Center (1999) who announced mental and physical health of active women is in a better condition compared to active men.

Neither were results of this research in conformity with the research results of Agha Mohammadi (2001), Bahrami and Nobakht (2001) and Iwata (1999), who observed no significant difference between gender and general health and marital status of their samples.

The difference between general health and marital status of the samples were significant and married people were in better health condition compared to singles. This finding was in conformity with the research result of Sadeghi Boroujerdi (2003), Bahrami and Nobakht (2001) and Fong and Lin (1994). Perhaps, this can be attributed to the issue of social protection of the married people and as a result, bringing them a better mental health.

Educational level and academic rank of the sample academic staff had a significant difference in general health (P<0.05). Tucky test clarified that, the samples with bachelor's degree working as Junior Instructor, were of better general health compared to holders of other degrees and higher academic ranks. This is in conformity with the research results of Cronister and other (1981) and Mousavi (2001). But Carter (1994), Brouztamic (2000) and Sadeghi Boroujerdi (2003) reported that, there was no difference between educational level and health of individuals. Also, research results of Rezaei (1989), Nourbakhsh (1999), Jahan Seir (1999), Sharifi (1999), Golabi (2001), Ramezani (2001) which were in conformity with the those of the present study, showed that fresher academic members are under less stress.

From the research result one can imply that, the Bachelor samples in the rank of Junior Instructor were in better general health conditions compared to Master and PhD samples. This may be owing to their lesser engagement in teaching post-graduate courses and as a result, less engagement in supervising theses and student's dissertation, and generally their lesser involvement in research works they may enjoy more peace and quiet ending in their better mental and physical health. This finding was in conformity with the research results of Tondnevis (2001) who showed the educational level of samples has a positive and significant relation with their participation in sportive activities.

In general, although results of this research reviewed details of general health among academic members of Iranian universities, but we admit, much more investigation is required to get more precise answers, to the question of: How and to what extent are the physical and sportive activities effective on providing the general health of academic members? And can they resist the crises and problems originating from modern living styles?

REFERENCES

[1]Aarnio, M.winter, T.kujala, U.M. and kaprio. J. (2002). British Journal of sports medicine. Vol.36, PP.360-364.

[2]Asadi. H. & Ahmadi. M.R. (**2000**). Comparative study of sanandaj high school athlete and non athlete students' mental health. The degree of Master thesis. Tehran University.

[3]Asadi. H. & Goudarzi. M. (2003). Harekat journal. Vol. 5. pp. 53.

[4]Asgari. H. & Nooraee. T. (**1999**). Study the effects of gender, age and records of sport activities of Kerman universities professors on sport revenue. B.Sh.University of Kerman.

[5]Bagherian. F. (**2004**). Study the social ranked of scientific mission members of Iran universities. Journal of research and planning institute of high instruction.

[6]Bannazadeh. N. (2004). Journal of medicine and purification. Vol. 37.PP.16-28.

[7]Boreham, C., J. Twisk, L. Murry, M. Savage, J. J. Strain. And G. Cran (2002). Med. Sci. Sports Exerc. Vol.33, PP.270-274.

[8]Boroujerdi. S. (**2003**). The relationship among job stressor factors with physical-mental health 906

and exhausted of Iranian Universities scientific mission members in physical education and sport science field. The degree of master thesis. T.M. University.

[9]Brown, D.R. (1992), canadian Journal of sport sciences, sep; 17(3), PP.185-193.

[10]Dastjerdi. R & Khazaee. K. (2003). Study the general health of college students of medical school.

[11]Derakhshan. M. (**1997**). Study the relationship of rate of proceeds to sport and general health of Tehran Sepah managers. The degree of master thesis. B.Sh.University.

[12]Finkenberg, ME; Mood, FM (1996). Perceptual and Motor skills, 82 (1), pp189-22.

[13]Fisher, M; Juszczak, L; Friedman, SB (**1996**). Sports participation in an urban High school: Academic and psychological of Adolescence Health, 18(5), PP.329.340.

[14] Fontaine, K. R., (2000). Journal of Physician and sports medicine, 28, 10.

[15]Foster, YA (1997). Perceptual and Motor skills, 84(2), pp.609-10.

[16]Khaledan. A. (2000). Harekat journal. Vol. 5. pp. 102.

[17]Kohl, C. C. (2002). Parental Influences in youth sport, Msc, Faculty of spring field college.

[18]Madadi. F. & Niroomand. N. (**1990**). Physical activities image in preventing and cure of illnesses. Thesis of universal health organization.

[19]Mousavi. S.J. (**2001**). Study the sport image on nerve pressure, physical and mental health of Islamic Azad Universities professors and employees in third district of Iran. The degree of Doctoral thesis.

[20]Poursoltani. H. (2003). Journal of sport and movement science. Vol. 2. pp. 15.

[21]Regan Gail (**2004**). Functional fitness and Lifelong activity as predictors of health in a group of community dwelling older adults, Health sciences, Kansas.

[22]Razavi. M.H. (2002). Journal of Olympic. Vol. 22. pp. 85.

[23]Salesi. M. (**2001**). Study the effect of sport activities on mental health of athletic physical invalids. Shiraz University.

[24]Soltani. I. (**2003**). Sport image in human resource development and promoting the quality of industrial work. First sport and industry conference. National Olympic Academy.

[24]Tondnevis. F. (**2001**). The sport place in Iranian people leisure times. National Plan. Board of Iranian scientific research.